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Docket No.: 5000-0117PUS1  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Jordi TORMO I BLASCO et al.

Application No.: 10/531,980

Confirmation No.: 5792

Filed: April 20, 2005

Art Unit: N/A

For: 2-MERCAPTO-SUBSTITUTED  
TRIAZOLOPYRIMIDINES, THEIR  
PREPARATION AND THEIR USE OF  
CONTROLLING HARMFUL FUNGI, AND  
COMPOSITIONS COMPRISING THESE  
COMPOUNDS

Examiner: Not Yet Assigned

**LETTER**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Subsequent to the filing of the above-identified application on April 20, 2005, attached hereto is an English translation of the International Preliminary Examination Report (Form PCT/IPEA/409) that should be made of record in the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or to credit any overpayment to Deposit Account No. 02-2448 for any


Application No.: 10/531,980

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additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Dated: August 29, 2005

Respectfully submitted,

By   
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Attachment(s)

US - Birch

Patente, Marken u. Erfindungen From the INTERNATIONAL BUREAU

PCT 06. Juli 2005

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY  
(CHAPTER I OR CHAPTER II  
OF THE PATENT COOPERATION TREATY)  
(PCT Rule 72.2)

To:

BASF AKTIENGESELLSCHAFT  
67056 Ludwigshafen  
ALLEMAGNE

1. AST/V  
2. Ref

Date of mailing (day/month/year)  
30 June 2005 (30.06.2005)

Applicant's or agent's file reference  
54062

International application No.  
PCT/EP2003/012773 ,

International filing date (day/month/year)  
14 November 2003 (14.11.2003)

Applicant

BASF AKTIENGESELLSCHAFT et al

## IMPORTANT NOTIFICATION

EL: Phase beendet 19.04.05

## 1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

## 2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

AZ, CA, CH, CN, GH, KG, KP, KR, MK, MZ, RU, TM

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, BA, BB, BG, BR, BY, BZ, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EP, ES, FI, GB, GD, GE, GM, GR, HU, ID, IL, IN, IS, JP, KE, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, SC, SD, SE, SG, SK, SL, TJ, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

## 3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Authorized officer

Yolaine Cussac

Facsimile No.+41 22 740 14 35

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## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2003/012773

## Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:

☐ international search (under Rules 12.3 and 23.1(b))

☐ publication of the international application (under Rule 12.4)

☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☒ The international application as originally filed/furnished

☒ the description:

pages \_\_\_\_\_ 1-31 \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the claims:

pages \_\_\_\_\_ 1-10 \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_, as amended (together with any statement) under Article 19

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ the drawings:

pages \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 03/12773

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-10	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-10	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

## 2. Citations and explanations

Reference is made to the following documents:

D1: DE 101 21 102 A (BAYER AG) 7 November 2002  
(2002-11-07) mentioned in the application

D2: EP-A-0 550 113 (SHELL INT RESEARCH) 7 July 1993  
(1993-07-07) mentioned in the application

## 1. Novelty

The present application discloses triazolopyrimidines of the general formula I (claims 1 to 4), a method for the production thereof (5 to 8), an agent for the control of harmful fungi containing a compound of formula I (claim 9) and a method for the control of harmful fungi using a compound of formula I (claim 10).

D1 and D2 disclose triazolopyrimidine derivatives which differ from the compounds according to the invention by virtue of the mercapto group in the 2-position of the triazolopyrimidine skeleton. The D1 and D2 compounds are suitable for the control of harmful fungi.

The subject matter of the present application is considered novel (PCT Article 33(2)).

## 2. Inventive step

The problem addressed by the invention was to produce further triazolopyrimidine derivatives having enhanced efficacy against harmful fungi by comparison with the known compounds (page 3, lines 14 and 15).

D1, which is considered to be the closest prior art, discloses triazolopyrimidines of the general formula (I) from which the subject matter of claim 1 differs in that a mercapto group is present in the 2-position of the triazolopyrimidine skeleton and the D1 compounds have an alkylthio group in the 2-position. The D1 compounds are used for the control of micro-organisms.

The solution to the above-mentioned problem lies in the production of compounds defined by the general formula I in claim 1. The data for efficacy against harmful fungi is given for a compound from example 9 in the last paragraph on page 31.

The structural difference between the present compounds in claim 1 and the prior art compounds in D1 is not very great. The compounds in the present application have an HS group in the 2-position, whereas the closest compounds in table 1 of D1 have a CH<sub>3</sub>S group in the 2-position. The problem addressed by the invention was to provide compounds with enhanced activity. Sufficient comparative data was not, however, found in the description in the present application to demonstrate that the compounds in claim 1 exhibit enhanced activity over the D1 compounds.

Furthermore, the application does not contain sufficient information credibly to demonstrate that not only the

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 03/12773

above-mentioned compound from example 9 but also a further group of compounds more representative of the whole scope actually constitute a solution to the above-mentioned problem. An inventive step cannot be acknowledged owing to the above-mentioned defects (PCT Article 33(3)).

3. Clarity

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The applicant is advised that the substituent  $R_3$  is not defined either in formula III of claim 6 or in the description (page 3, line 27 to page 4, line 5).

It has also been established that claims 2 and 3 do not correspond to preferred embodiments. Inconsistencies between the description and the claims should be avoided if they may give rise to doubts as to the scope of protection.

An obvious error has been found in line 3 on page 4 of the description. The substituent R is defined in parentheses instead of  $R_4$ .

A further obvious error has been found in line 13 on page 14 of the description. The substituent  $L_n$  is defined instead of  $L_m$ .